

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): An X-ray computed tomographic apparatus wherein image data are reconstructed on the basis of a plurality of data segments which extend over a plurality of heart beats extracted from data obtained by scanning a patient with X-rays under helical scan, comprising:

a setting device which is configured to set a helical pitch and a rotational speed concerning the helical scan;

a temporal resolution data generation device which is configured to generate a temporal resolution of the image data that correspond to the set helical pitch, the set rotational speed, and a heart rate of the patient;

a screen building device which is configured to build a scan-plan screen that contains the set helical pitch, the set rotational speed, and the generated temporal resolution; and

a display device which displays the scan plan screen.

Claim 2 (Original): An X-ray computed tomographic apparatus as defined in claim 1, wherein the scan plan screen contains a graph which expresses a temporal change of the temporal resolution versus a temporal change of the heart rate of the patient.

Claim 3 (Original): An X-ray computed tomographic apparatus as defined in claim 1, wherein the scan plan screen contains a temporal change of the heart rate of the patient.

Claim 4 (Original): An X-ray computed tomographic apparatus as defined in claim 1, wherein the scan plan screen contains a button for obtaining the heart rate of the patient.

Claim 5 (Original): An X-ray computed tomographic apparatus as defined in claim 1, wherein the scan plan screen contains a box for inputting the heart rate of the patient.

Claim 6 (Original): An X-ray computed tomographic apparatus as defined in claim 1, wherein the heart rate is a mean heart rate or a median within a predetermined period.

Claim 7 (Currently Amended): An X-ray computed tomographic apparatus wherein image data are reconstructed on the basis of a plurality of data segments which extend over a plurality of heart beats extracted from data obtained by scanning a patient with X-rays under helical scan, comprising:

a selection device which is configured to select a combination in which a temporal resolution of the image data corresponding to a heart rate of the patient becomes the shortest, from among a plurality of combinations of helical pitches and rotational speeds concerning the helical scan as satisfy an upper limit of a scan time;

a screen building device which is configured to build a scan plan screen that contains the selected combination of the helical pitch and the rotational speed, and the shortest temporal resolution; and

a display device which displays the scan plan screen,

wherein the scan plan screen contains a graph which expresses a temporal change of the temporal resolution versus a temporal change of the heart rate of the patient.

Claim 8 (Canceled).

Claim 9 (Original): An X-ray computed tomographic apparatus as defined in claim 7, wherein the scan plan screen contains a temporal change of the heart rate of the patient.

Claim 10 (Original): An X-ray computed tomographic apparatus as defined in claim 7, wherein the heart rate is a mean heart rate or a median within a predetermined period.

Claim 11 (Original): An X-ray computed tomographic apparatus as defined in claim 7, wherein the selection device selects from among the plurality of combinations, a combination in which a temporal average concerning a temporal change of the temporal resolution corresponding to a temporal change of the heart rate within a scheduled breath-hold time period becomes the shortest.

Claim 12 (Original): An X-ray computed tomographic apparatus as defined in claim 11, wherein the temporal average is a simple temporal average.

Claim 13 (Original): An X-ray computed tomographic apparatus as defined in claim 11, wherein the temporal average is a weighted temporal average.

Claim 14 (Original): An X-ray computed tomographic apparatus wherein image data are reconstructed on the basis of a plurality of data segments which extend over a plurality of heart beats extracted from data obtained by scanning a patient with X-rays under helical scan, comprising:

a generation device which is configured to generate on the basis of a heart rate of the patient, a plurality of temporal resolutions which correspond respectively to a plurality of combinations of helical pitches and rotational speeds concerning the helical scan as satisfy an upper limit of a scan time;

a screen building device which is configured to build a scan plan screen that contains the plurality of combinations of the helical pitches and the rotational speeds, and the plurality of generated temporal resolution; and

a display device which displays the scan plan screen.

Claim 15 (Original): An X-ray computed tomographic apparatus as defined in claim 14, wherein the scan plan screen contains a graph which expresses a temporal change of the temporal resolution versus a temporal change of the heart rate of the patient.

Claim 16 (Original): An X-ray computed tomographic apparatus as defined in claim 14, wherein the scan plan screen contains a temporal change of the heart rate of the patient.

Claim 17 (Original): An X-ray computed tomographic apparatus as defined in claim 14, wherein the heart rate is a mean heart rate or a median within a predetermined period.

Claim 18 (Original): An X-ray computed tomographic apparatus as defined in claim 14, wherein the generation device generates a temporal average concerning a temporal change of the temporal resolution corresponding to a temporal change of the heart rate within a scheduled breath-hold time period.

Claim 19 (Original): An X-ray computed tomographic apparatus as defined-in-claim 18, wherein the temporal average is a simple temporal average.

Claim 20 (Original): An X-ray computed tomographic apparatus as defined in claim 18, wherein the temporal average is a weighted temporal average.